# Work Activity Plan
# Crimson Pipeline L.P.
# Dominguez Channel Spill

Plan No. 8
Date: October 24, 2011
Activity: Collection Area Water Treatment System

## 1.0 Introduction:

Crimson Pipeline L.P. (Crimson) is proposing to install a water treatment system at the Grant Street and Leeds Avenue location ("Collection Area") to facilitate the removal of crude oil from storm water being discharged from the French drain system along the Alameda Corridor Transportation Authority (ACTA) right-of-way (ROW). While it is not anticipated that crude oil will be discharged from the French drain system, the treatment system will be installed as a mitigation measure should oil be found. Treated water from the system will be discharged to the Los Angeles City Sanitation Department (LACSD) sanitary sewer.

## 2.0 Background:

On December 21, 2010, the National Response Center (NRC) received an incident notification of an oil sheen coming from the Dominguez Channel near Wilmington, CA. In response to this notification, an investigation of the area revealed that oil was present in the Los Angeles City storm drain system in the vicinity of Leeds Avenue and Grant Street, in the City of Wilmington, California. Upon further investigation, oil was found to have entered the storm water system from an outfall of the ACTA railroad ROW storm water drainage system (French drain).

During a March 2011 investigation conducted on behalf of ACTA and Crimson, oil was also observed in the east and west French drain systems where the Youngstown Lateral intersects beneath both conveyance trenches. Oil from the west side migrated south through the French drain and onto the Shell Lubes Plant property and into the onsite storm water before being discharged to the Shell Lubes Plant storm water retention basin. It is believed that oil on the east side migrated south through the French drain system where it surfaces to a concrete trench known as the ACTA outfall. The flow of oil from the apparent source area is intermittent and related to rain events that cause flow in the storm water systems (ACTA, January 2011).

## 3.0 Scope of Work:

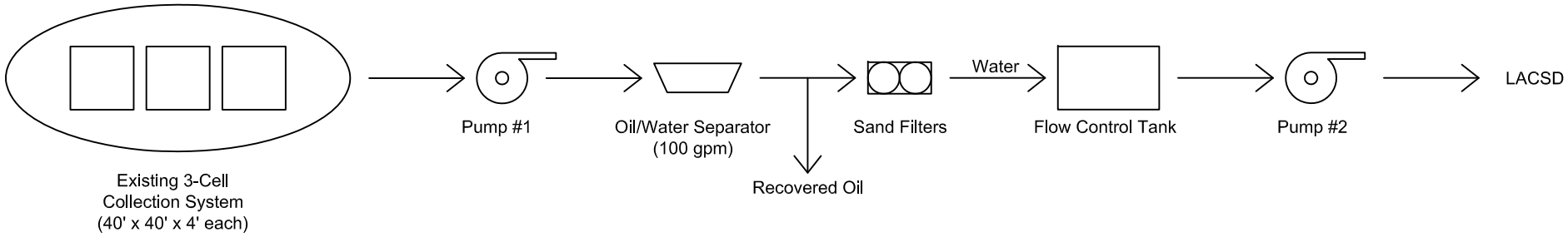
The French drain running along the ACTA ROW discharges storm water from an outfall located at the northwest corner of the Collection Area. In response to the discharge of oil from the ACTA ROW, a 3-cell collection system was constructed using K-rails, visqueen, and sandbags. The cells are connected using an underflow configuration of PVC pipe. Each collection cell is approximately 40' x 40' x 4' with a holding capacity of approximately 48,000 gallons. The 3-cell collection system acts as a passive oil\water separator. The storm water treatment system is designed to handle storm water runoffs that include any oil which may be discharged from the French drain system.

### 3.1 Treatment System Design:

The water treatment system design includes a centrifugal pump capable of pumping water at 100 gallons per minute (gpm) that will be used as an intake from the 3-cell collection system. The water will be pumped into a 100-gpm oil/water separator (OWS) to remove organics associated with free oil. The recovered oil from the OWS will be drained and collected in a drum(s) placed within secondary containment. The water that passes through the OWS will be gravity fed or pumped through sand filters to a holding tank before being discharged to the LACSD under Industrial Wastewater Permit Number IU125918. Figure 1 is a conceptual process flow diagram for the water treatment system.

The system will be constructed as a skid mounted unit and installed inside of a secured container near the 3-cell collection system. All necessary intake and discharge piping will be installed at the treatment location. The holding tank will be equipped with level controls to prevent the discharge of any oil to the sanitary sewer should oil pass through the OWS. The holding tank will be periodically inspected for the presence of free oil. Water sampling will also be performed to confirm LACSD discharge permit conditions.

Crimson will obtain the necessary permits, if any, from the City of Los Angeles to install the treatment system. Electrical power will be required for the system pumps and control panel.




Legend:

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| gpm | Gallons Per Minute |
| LACSD | Los Angeles County Sanitation Department |

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| Created by: VM | Date: 10/21/2011 |

Client: **Crimson Pipeline, L.P.**
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Figure: Figure 1 - Conceptual Process Flow Diagram

Source: SA Consulting